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CATS



NEWSLETTER

The Official Journal of the Capital Area Timex/Sinclair Users Group

Presidential Ramblings

Holiday Gift Exchange Has Guests Staggering

Special Report by Hank Dickson, Acting President

The Fourth Annual Clive Sinclair Memorial Gift Exchange at December's CATS meeting broke all previous records for length and girth.

The number one prize of all was brought by

CATS member EDWARD

KAPP all the way from Mechanicsburg, PA. Ed is one of the many CATS

participants from Pennsylvania whose enthusiasm keeps this group afloat.

MIKE WARMICK elected to risk Ed's mystery gift, which consisted of two huge cardboard boxes plus a hand cart to move them around. They turned out to contain a large U-Matic 3/4"-tape video player plus dozens of 3/4"

videocassettes (on how to run a McDonald's franchise!). Some people have all the luck!!

MANNIE QUINTERO earned the right to pick any gift in sight at the end of the festivities. He chose "Q-SAVE". MARK FISHER ended up with a practical printer switch-box (parallel, no doubt). HERB SCHAFF opted to keep his COMPUTER TUTOR (was it for algebra, Herb?).

The participants agree that it will

never be possible in the future to duplicate Uncle Clive's Holiday Gift Exchange of 1989.

Hey, fellows, how about 1990???

Best wishes for the New Year from the Executive Committee

I'd like to wish you the best for the coming year. To make 1990 the best year yet, we will need everyone to pitch in.

Hank Dickson, acting president

Looney, John Cooper, Cristin Wunderlich, and Charles Dickson III. Charley Dickson is remembered as co-founder of the Lanham Sinclair User Group (LSUG), one of the precursors of CATS.

Andy Looney began by explaining how an ICEHOUSE game was featured in some short stories he had written in an earlier life. Eventually the substance, rules and etiquette of the game began to take shape.

ICEHOUSE is a board-less board game which features the use of small resin plastic pyramids which come in three sizes and four colors.

Scoring is

determined by positional and relational structures created during the course of the short, intense games.

The members of the ICEHOUSE gang slowly demonstrated the way a game is started and carried out. They also showed some of the etiquette and protocols which have developed, and which are well-documented in the printed rules. Scoring, the most challenging part of all, was also explained.

Numerous questions were fielded, and some suggestions even offered by the generally entranced CATS membership.

Most all the 100 numbered and signed first editions of ICEHOUSE (at \$20 each) were gone by December, though CATS members were able to

Happy New Year

CATS MEMBERS ENJOY FESTIVE HOLIDAY PARTY

TS enthusiasts who braved an early December blast of snow, ice and cold were rewarded with a colorful presentation about a new game originated and produced by a group of local people. It was a welcome R & R kind of presentation, quite different from CATS' normal discussions about the vagaries of home computing.

The ICEHOUSE game was developed by four individuals who are either graduates of, or students at, the University of Maryland, College Park, and who are now all now working at the Goddard Space Flight Center in Greenbelt, MD. They are: Andrew

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JANUARY MEETING AGENDA

11 AM	Workshops
1 PM	Executive Meeting
2 PM	General Meeting
	PROGRAM
	Tom Bent-Memory Expansions

Key Dates

JANUARY

- 13 General Meeting
- 26 February Newsletter
DEADLINE

FEBRUARY

- 10 General Meeting

Happy New Year! Happy New Decade!

A last look back

Before we focus in on the year ahead, a look back seems in order. I don't think that there will be much of an argument that the 1980's were quite a decade, with the recent events being the frosting on the cake to an incredible 10 years. While the political events have hogged the spotlight recently, the decade began with some incredible technological events, one of them being the widespread use of the personal computer. Sinclair machines were right on the edge of the revolution. If you talk to many people that are active programmers today, they will say that they got their start on the ZX81/TS1000. My QL has done for years what many of the "leading edge" computers are advertising as "advanced" features. Since the assassination of Sinclair technology by the Luddities at Amstrad with their MS-DOS mind(?)set, we Sinclair users have circled the wagons and looked inward. While the commercial sources continue to desert us--you really can't blame them as they have to pay their bills -- we have found a rich motherlode in the individual users of our machines. In our group we have a few true "gurus" at whose feet we can gain great amounts of wisdom but, more importantly, we have many who are willing to share their experiences, tricks, shortcuts, etc. As an editor I am profoundly grateful to them all, it certainly makes my job a great deal easier. As a user, though, is where their importance really shines through. If you are like me, every issue contains something that makes me stop and say, "Hey, I never thought of that. I wonder where I can put that to use?"

To our writers: THANKS

So, before we get wrapped up in what

the future holds, lets give a big well deserved THANK YOU to all of the contributors that made the CATS newsletter so outstanding for the last 7 years.

A wish list

Close your eyes and think about what you'd like to see developed for the QL in the next year or so. In the interests of getting the ball rolling, here is my wish list: 1. Remove the "microdrive key" from TechniQL so it can run completely from disk. 2. Laser printer drivers for the Psion suite of programs: Quill, Abacus, Archive, and Easel. Admittedly, my list is short. Some might say that as I get older I get easier to please; while I think that I'm just more realistic. I think these are doable by some ingenious QLer. At any rate, why don't you send me your wish list. I'll print all I receive.

This issue

Have you ever had a key(s) go out and wondered what was the cause? Mark Fisher has contributed the QL
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Submissions to the newsletter should conform to the following criteria:

Column width no greater than 2 3/8". QL users should submit their articles on microdrive cartridge or floppy disk. TS 1000 or 2068 based articles should be hard copy. All authors should consider sending their articles to the newsletter via the CATS BBS, (301) 588-0579.

Our mailing address is:

CATS
PO. Box 467
Fairfax Station, VA 22039

holbourn

news around the bellway

HOW TO MAKE A BBS

(BBS progress report, as of 12-19-89)

by Mark Fisher

I'm glad to report that the Kaypro 10 (K10) is in good health. It didn't seem that way when I first took delivery, as mentioned in last month's installment. Since then, I've heard of other recently-bought K10's with BDOS errors #2 - I think that the green crud that grows on gold contacts around here is something to watch for. Fortunately, it's susceptible to cure. This month's installment will cover dealing with the depths of CP/M, and the strange things that lurk there.

Setting up the machine:

On to the Hard Disk! Ahhh, the space! (I've got 146K left of 5 meg right now.) Ahhh, the cornucopia of already installed programs! (With no documentation.) The keyboard is nice - real key switches, and the machine works well. Time to look at the HD.

When, as mentioned last month, the HD had recently been formatted accidentally, the then owner got a replacement suite of software from a fellow K10 owner, a Mr. Harris, of Triple Printing. Since he had only had the machine for a few days, he was somewhat haphazard about distributing the programs across the HD's User Areas (CP/M's way of doing sub-directories). The result was a lot of duplication, and memory use.

OK, no problem, I'll just print out the directories (Ctl-P toggles "printer echo of all mat'l sent to the screen - nice!), mark out the programs that are dups (some with

identical names had different lengths - time to check them out), and delete the surplus. First, though, I'll back up the most important stuff... oops, that's the phone - and now the disk is full. Ahem. Where was I? Yes, deleting that unneeded copy of Wordstar 4.0 - I saw another up in User area 4. On up to 4, and... NO WORDSTAR! oops.

"uh, Mr Harris? Remember the copy of the programs you lent to restore the K10? uh, could I have another?" He was understanding, and I even picked up a copy of the full printer driver code (148K!) - he had pruned it down to his printers only, and I needed different drivers.

Got home, went to copy the drivers - and NOTHING ON THE DISK!

"uh, Mr Harris? Remember me? Somehow, heh, heh, I managed to dump the drivers from the disk. Um, could I have another copy?" He was cheerful, and I got a SECOND copy of the drivers, making SURE that it was on there before I left.

Got home, went to copy the drivers, and NOTHING ON THE DISK. Aw, come on. Let's see, there was a disk utility somewhere - DU86.COM. Ah HAH! the file was there, but only on even numbered tracks, and the directory thus was on the wrong track for the DOS to pick up. Unfortunately, CPM thinks of disk locations in terms of logical 'Groups' rather than tracks and sectors. Somehow, Mr. Harris's K10 had treated the disk as single sided. Since I had a SSDD drive, I plugged it in and the directory came up! It wouldn't copy, though - I assumed that seek times were off or something. However, when there's a will (sometimes)... I booted the machine with the SSDD plugged in,

LASER NEWS

Is there a laser in your future? If you think not, you may be surprised. As you know I've been shopping for one for the last 4 months. Prices for small "personal" models, in the 4-6 PPM speeds, are dropping rapidly as more players enter the market. While the Hewlett Packard IIP is making a lot of noise and will no doubt capture a lion's share of the market, I think the best buy is the Cannon LBP4. Smart buyers will see the obvious advantages it has and snap it up. Identical to the IIP as it uses the same engine and case (the controls are slightly different) but has scalable fonts. This is a MAJOR feature as it holds down memory required - most lasers use a separate character set for each point size. Not the Canon. One font set from which it generates any sized character. Generation time is also drastically reduced. But the biggest news is that this feature raises the price only \$200 or so more than the IIP. Epson, Mannesman Talley, and Brother have excellent models as well. Stay tuned. Sooner or later this newsletter will be produced on a laser.

ICEHOUSE-From page 1

obtain six for themselves. This means CATS should be entitled to at least one slot at the second annual ICEHOUSE tournament at the "Disclave" science-fiction convention at the Howard Johnson Plaza Hotel in New Carrollton next May. Watch this space!!

To be put on the ICEHOUSE mailing list, write:

ICEHOUSE Games, Inc.
PO. Box 761
College Park, MD 20740

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from where I sit

Several issues ago I promised that I would have some additional comments about Digital Precision's rebuttal to my critique of their desktop publishing program, Professional Publisher. After several months of saying that it would be in the next issue, here it is.

For those of you that are members of Quanta, you can refer to the September, 1989 issue, pages 20-27. For the rest, I will try to summarize the points, both pro and con.

In my letter I pointed out the following:

1. There was a bug in my copy.
2. Professional Publisher (version 3) has overcome many of the limitations of version 2, Special Edition.
3. There were several features that I found in Atari dtp programs which made them far more useable for our requirements than Professional Publisher.
4. While the upgrade accomplished many things, it lacked certain features. These I categorized as "fatal flaws".

First, let me say that the terminology "fatal flaws" probably is incorrect. When you have the best (of 3) QL dtp programs in a very small market, probably nothing could cause its demise, even if it should have a sharp stake driven through its heart. Second, I was trying to be instructive and objective, rather than try to demonstrate how to skewer arrogant software vendors. I certainly can't say that it was returned in kind. As in past replies to critiques of their software, DP's reply was condescending and abrasive, sort of like a mother bear defending her cubs. DP's corporate philosophy

seems to be that the software they develop is perfect and any clod that tries to point out problems is a churlish lout. I guess they feel their products are the software equivalent of the Immaculate Conception.

I really don't know where to begin, but for starters let's take "Limited Memory Capacity". My criticism was that the storage method used by PP stores entire pages, which seems to be a very inefficient way to do things. I am told that the Atari programs I use keep a file which has the attributes needed to generate a page, thereby allowing almost an infinite number of pages to be held in memory. When the program must print or load them to screen, the page is generated rather than keeping each page in its entirety. DP's answer completely missed the point and focused on MY computer as they tried to trash me about on-board memory. For the record, I am running a fully expanded QL with a MGUK ROM and Trump Card, and that certainly doesn't sound like 640K and, if I need to "get more RAM" to run their program, there are only a few QL owners in the world that can run PP.

As far as the bug which I originally reported, I got a copy of the revised PP from Doug Dewey and the bug is no longer there. I DO dispute the statement that the version should not make a difference. It does. I have a DP labeled PP disk that bombs AND THAT'S A FACT. DP posited that the problem might be my JSU ROM; however, see above. (As an aside: Why does everyone think users in the US has the same ROMs that were shipped with their machines? We are no more technically backward than the UK, where the users have gone through many ROM upgrades. Many US QLers have gone through several revisions.)

I pointed out that having ticks on the rulers without numbering them has limited usefulness. I also felt that the X and Y counters could be eliminated if the rulers were dimensioned. DP pointed out that many people would be upset if the counters were scrapped. I accept that; however, to say that the present system with undimensioned rulers "gives a reasonable compromise" and, therefore, "we can't get worked up about this one", is ridiculous. Why on earth have rulers other than for microjustification? Isn't that what the counters are used for? Shouldn't the user have the option of substituting rulers for the counters? How do I know, precisely in inches or centimeters, where the cursor is if there are no numbers on the ruler?

I questioned why they didn't include a 24 pin printer driver with the program. DP replied that they DO (their emphasis) supply graFix v3.0 to customers WHO REQUEST IT (my emphasis) at a cost of \$10. Now that's really great. You've believed the DP advert and bought the program. Now you have your little jewel ready to print. But wait, you have to send off for the printer driver because it wasn't included in the original package. DP points out that graFix is a PDQL program. So what. License it for use with PP or develop a driver of your own that is as easy to use as those for 9 pin printers that are included.

I will accept DP's explanation of why they don't allow resetting of all defaults within the program as well as their rationale for not displaying grid and guide line simultaneously. I cannot, however, accept their absolutely ludicrous rebuttal to my observations on text font appearance and dimensioning.

DP didn't like my criticism of using "CSIZE" rather some standard typographer's dimensioning unit, such as "points". They said they used "CSIZE" for the low definition character sets because that is how they are defined by Sinclair. As to the high-definition sets, they aren't measured that way. OK. So how are they measured? To use DP's words, "which may be defined on grids from 16 X 16 up to 48 X 48 pixels (36 times the definition of the QL-format fonts), with individually-set descender and width proportionality positions". Got that? What are they saying? I guess that you are reduced to the old "try it and see if it fits" method. This is progress? I have dumped out all the high definition fonts that are shipped with PP. Six of them are displayed below in the left hand column in their smallest dimensions (1 x 1). The center and right hand column contains "point dimensioned" fonts used by the Calamus (first 3) and PageStream (second 3) programs in 10 and 12 point sizes. For displays the PP HDF font styles may be fine but for text, in reality, only 2 can be used. Don't take my word for it, make up your mind using the samples below.

PRO	PAGE-	
PUBLISH	STREAM	CALAMUS
small3_fir	Time10	Times10
small3_bo	Time10	Times10
small2_	Time12	Times12
small_fi	Time12	Times12
small_b	Helv10	Swiss10
small2_t	Helv10	Swiss10
helvetica	Helv12	Swiss12
	Helv12	Swiss12

Font comparisons. PP fonts on left are smallest available. Larger sizes are in even multiples of smallest. Calamus and PageStream fonts available from 2 points (2/72") to page size in 1/10 point increments. 10 and 12 point sizes shown.

When you load text from an external source, you must be in text mode and these are, to quote DP, "low- definition character sets which are standard, "QL-format"...character sets". Furthermore, DP insinuates that these "are intended for draft work only". To get "high-definition" characters one must be in the font mode which will not accept externally produced text.

While not a part of my original letter, I feel that after reading DP's rebuttal I must make the following observations. DP should take their own rhetoric to heart, "Informed criticism is more than welcome, and will always be listened to by us. Dogma is unwelcome. Mr Smith is again recommended to read the manual,...". I believe the operative word here is "informed" and I doubt in DP's eyes no one is but them. If DP were to spend less time writing rebuttals and more time writing their manual more clearly and in greater detail, maybe there would be fewer cases of confusion among the users.

I could go on but I don't believe in overkill. I'll leave killing flies with atom bombs to DP. I was a bit hesitant to write this rebuttal; however, each time I read the DP reply, I realized that users should be aware that the program has some drawbacks.

This brings up a larger question. Why should QL owners have to suffer from the boorish manners of the software houses? I don't think they should have to and, furthermore, I don't think they will. I feel that I'm a somewhat typical computer user. Mind you, I said computer, rather than QL and for a good reason. I do not have time to write my own programs. I tried it and found out I was a better user than a software writer. I'll leave that for others more talented than I. My interests lie in getting the machine to work for me rather than vice versa. If I can't get the software that will do what I need, I'll have to go to a machine that offers programs that I can use. The missed deadlines,

empty promises, and arrogant behavior by the QL software community and peripheral developers has contributed as much to the QL's demise as Alan Sugar's premature burial of our "black brick".

Keep it up DP and you will see your QL investment turn to dross. It will serve you right.

BBS Progress Report-From page 3

then switched on the fly to the native DSDD in the K10, and the SSDD disk was read perfectly! The K10 still thought there was a SSDD drive out there, and adjusted its groups accordingly.

On to the BBS: BYE Bye510

A CP/M BBS must use several programs in sequence. This is due to the limited size of the free memory ("only" around 50K). Fortunately, it's fairly easy to "chain" programs together, with each one acting as a sub-routine in the overall suite. In this case, the first element is BYE. This program takes care of initializing the MODEM, fielding calls, setting the Serial port to the correct speed, and optionally, checking passwords, monitoring time, and keeping a log of all activity over the line.

BYE's current version is 5.1, hence BYE510 is the program. It's supplied in assembly language - but BEAUTIFULLY self-documented: It takes 140K of text to eventually boil down to 4K of m/c. After numerous fits and starts, I've been able to get it working. The first crucial element was Mannie's loan of a TRUE Hayes compatible MODEM. My Avatex was too dumb to act as a SmartModem, and too smart to act as a dumb one. The second element was reading EVERY letter of documentation. In an aside, a comment about an unrelated feature mentioned that setting the "ANCMDM" equate to YES let the K10 listen first at 300 BUAD, then at 1200, rather than expecting all MODEM report codes to come in at

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THE PASCAL PAGE by Duane Parker

COMPUTER ONE PASCAL COMPILER

In the first Pascal demonstrations and workshops we used a compiler called "QL Pascal" from Metacomco. This system provides a screen editor, a compiler, and a linker, each as a separate file. It takes two microdrive cartridges and an EPROM to run the system.

Later Cliff Watson provided a copy of "Computer One" Pascal for the QL. When I checked this out I found it was a joy to use. The editor, compiler, and linker are all on one mdv and any access to other files is transparent to the user. The user accesses all the features from a main menu, followed by submenus. The editor does not have all of the features of Metacomco's editor, but it is quite adequate. Furthermore, the compiler has a super feature, when it finds an error in the source code it writes this to an "ERR" file. Then when the editor brings the source code file back for editing the bad line is written from the ERR file and set-off by "x"'s. Not only is the number of the error reported but a descriptive phrase is shown. No more checking the compile-time error list in the manual's appendix! Also on the mdv are two sample programs, and no EPROM is required! I tried the compiler on some of the exercise programs that we have been working on. It worked on many of them, and with small changes it worked on all of them. Therefore, we used this system in our last workshops (We can also operate it through the network if desired.)

Come and see, the sample program has some colored graphics- you can do that with Pascal too. OK, what's the rub? For one thing the object code (executable program) from the compiler runs slower than the QL Pascal, and certain advanced Pascal features are not implemented. Still, for learning the language it is easier to use.

MORE OL SPEED!

In the September N/L, I described some programs in two version of Pascal, Forth, and SUPERBASIC. They allowed us to determine relative speeds obtained by the software. Each program determined all the primes less than the max. down to a limit as input by the user. Each then prints the primes to the screen, and when finished, prints the run-time. The results for a calculation of primes from 29000 to 32767 were:

Language	Run-time,seconds
Forth79(Quanta lib.)	23
QL Pascal (Metacomco)	27
Computer One Pascal	67
SUPERBASIC (interpreter)	245

I plan to compile the BASIC program, but I need to get a compiler, or someone else to do that for me. Maybe, we could compare "The Liberator" with "Turbo-Charge". The source code for these programs are shown in listings 1 through 4.

LISTING 1

First Block:

```
( A comparison program)
2VARIABLE P-BEGIN
: ATEST ( n1,n2.. n1,tf tests for
even div. by n2 ) OVER SWAP
MOD 0= ;
: FACTORS ( n.. ff/n returns
num if prime ) 192 3 DO I
ATEST IF DROP 0 LEAVE THEN
2+LOOP ;
: PRIMES ( n,32767 .. prints
primes ) 32767 DO I
FACTORS ?DUP IF . THEN -2
+LOOP ;
: SET-TIME TIME P-BEGIN 2! ;
: DISPLAY-TIME CR CR
."Runtime = " TIME P-BEGIN 2 D-
D ." seconds " ;
: INFO-PRIMES ." This is a short
program in FORTH (from QUANTA
lib.) " CR ." This program will find
prime numbers less than 32767. " CR ;
```

```
: INITIATE ( .. n, inputs the
bottom limit ) ." Stop
calculation at what value less than
32767? " CR ." Enter lower limit, a
space, and START (caps), and
'ENTER'. " ; -->
```

Second block:

```
( A comparison program )
2VARIABLE P-BEGIN
: ATEST ( n1,n2.. n1,tf tests
for even div. by n2 ) OVER
SWAP MOD 0= ;
: FACTORS ( n.. ff/n returns
num if prime ) 192 3 DO I
ATEST IF DROP 0 LEAVE THEN 2
+LOOP ;
: PRIMES ( n,32767 .. prints
primes ) 32767 DO I
FACTORS ?DUP IF . THEN -2
+LOOP ;
: SET-TIME TIME P-BEGIN 2! ;
: DISPLAY-TIME CR CR ."
Runtime = " TIME P-BEGIN 2 D-
D ." seconds " ;
: INFO-PRIMES ." This is a short
program in FORTH (from QUANTA
lib.) " CR ." This program will find
prime numbers less than 32767. "
CR CR ;
: INITIATE ( .. n, inputs the
bottom limit ) ." Stop
calculation at what value less than
32767? " CR ." Enter lower limit, a
space, and START (caps), and
'ENTER'. " ; -->
```

LISTING 2

```
PROGRAM
primes(INPUT,OUTPUT);
CONST
max=32767;
testfactor=191;
VAR
start,stop,minval,index,j,pos:
INTEGER;
trial:BOOLEAN;
FUNCTION
time : INTEGER;EXTERNAL 34;
```

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CATS BBS NEWS

Mark Fisher, SYSOP LIFE IN THE FAST LANE (1200 BAUD style)

I'm not "the great telecommunicator". I enjoy the Sysop-ing I've been doing, mainly because I DON'T have to do any phoning - I just yell at you guys to do that. However: I've been forced into the MODEM game in order to find out more about how this Kaypro works. In the process, I've got more comfortable dealing with BBS systems. I'd like to cover what it's like to get into a full-scale BBS, and a few tips to ease the impact of the flood of information that can boil out of your terminal.

BEFORE you dial:

There are a few things to get ready before you pick up your phone. First, if you're new on the board, it's a good idea to have your terminal program keep a log of what's happening so that you can study it a lesiure after you disconnect. Next, set your communication parameters - 8 data bits, 1 stop bit, and no pairity are common settings formost boards.

Most boards support both 300 and 1200 BAUD (even 2400), and the faster speeds can make a difference if you're leafing through the big information files you'll find on many BBS's.

On to the BBS!

I've been leafing through one BBS, mainly; with a few excursions to far, exotic lands like Canada. This BBS is maintained by Ken La Capria, for CaPDUG (Capitol area Public Domain Users Group), 292-7955. It has EXTENSIVE files of public domain software both for CP/M and MS-DOS. In addition, it is a FIDO node, supporting several echo's, including CPMTECH and a MIDI conference. Most BBS programs make an effort to present a familiar face to the user. Typically, you will see a greeting, and then a

request for your name. If you're not in the system, you will be treated as a new user. For most systems, you access on the first call is restricted, until the SYSOP decides that you're a real person. You'll be asked for your city and home phone, and a password.

This is so someone else doesn't mess with things under your name. I try to standardize my passwords, so that I don't have to remember which BBS has what. I'll try to splice the club's membership list onto the CATS BBS to spare club members this step on our BBS. Next you're passed to a main menu. Information on the CaPDUG BBS is divided into two areas, messages and files. Access to these two areas is from here, as well as other "global" adjustments, such as your screen width and prference for command prompts. In the Message base menu, there are a variety of options for looking at the message base. Just entering a number displays that message, or you can look at other message bases - a list of choices appears when you press the (A)lter command. Four of those bases are local, and four are nationwide FIDO echoes. If you choose to, you can leave a message on any of the message bases.

The procedure is much like our BBS, except for two things: 1) The message is not saved until YOU tell the BBS to save it, and 2) for the same reason, you can edit the message before saving it.

On the other side we have the files: HUNDREDS of em! And all listed under such informative names as G001DGELBR. Each of the listed files is a library of other files, assembled and compacted. (We've got QL versions of the utilities that split them into their components.) But not to worry, for there's a (F)ind routine that can scan the hidden file names to tell you which of the libraries is the one you want.

When it comes time to download them... well, I haven't mastered that part of the problem. Is there anyone

reding this that uses XMODEM file transfers? I'd like to hear how it's done.

At any time, you can elect to logoff, via the (G)oodbye option. You're given a last chance to leave a note forthe SYSOP, and dropped. Now, you can review the log of you session at leasure, puzzling out exactly what all those cryptic notations mean. Next time you dial in, you'll see a list of replies to you queries, and as you look at each message base, you'll be reminded of what message number was the last you viewed.

Have fun on the boards! (And my our board be one of them.)

BBS Progress Report-From page 5 1200.

On to the BBS proper. Phoenix Pete has sent us six options. Of these, MBBS seemed to be easiest to start. Unfortunately, it WASN'T supplied in ASM form, and a bug had crept into the machine code initialization program that caused it to refuse all input to a crucial question.

OK, how about RBBS? It's in basic (PP had sent a compiler as well), but as I looked at it, I realized that there wasn't any support for 32 col screens.

OK, how about PBBS? Ed Grey has a Timex BBS in California that uses it, so it must be OK. I broke it out of the .LBR file, and started in on the 78 page manual. OOPs... "Your system MUST have a real time clock." Guess what machine doesn't.

That's where I am right now. If I can twit BYE into thinking it HAS a real time clock, say, asking each caller what time it is, and storing the result in the spot PBBS expects... Or if I can locate a clock board for the K10 - IBM boards are \$22, but they have a slot for stuff like that... Or one of the other programs, that's what I was going to do before I started writing this today.

I'm leaving for Christmas - I'll just have to hope the BBS stays up in my

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```

BEGIN
pos:=maxDIV 100;
WRITELN ('This is a short
Metacomco Pascal program. ');
WRITELN;
REPEAT
BEGIN
WRITE('Stop calculation at what
value less than ',max,'? ');
READLN(minval);
IF minval >= max THEN
WRITELN('Invalid!');
END;
UNTIL minval < max;
WRITELN('Primes < ',max:6,' &
',minval:6);
WRITELN;
start:= time;
FOR index:=max DOWNT0 minval
DO
BEGIN
j:=3;
WHILE j < testfactor DO
BEGIN
IF ((index MOD j) = 0)
OR (NOT ODD(index)) THEN
j:= testfactor + 2
ELSE j:= j + 2;
END; (of
WHILE/DO) IF index
< (pos*100) THEN
BEGIN
WRITELN;
pos:= pos -1;
END; (of IF/THEN)
IF j = testfactor THEN
WRITE(index:6);
END; (of FOR/DO) stop:=time;
WRITELN;
WRITELN;
WRITE('Runtime = ',(stop - start):7);
WRITELN(' seconds, by
Metacomco Pascal');
END.

```

Listing 3

```

PROGRAM primes;
CONST
max=32767;
testfactor=191;
VAR
start,stop,minval,index,j,pos:
INTEGER;
trial:BOOLEAN;
BEGIN

```

```

pos:=max DIV 100;
WRITELN('This is a short Computer
One Pascal program [#2]. ');
WRITELN;
REPEAT
BEGIN
WRITE('Stop calculation at what
value less than ',max,'? ');
READLN(minval);
IF minval >= max THEN
WRITELN('Invalid!');
END;
UNTIL minval < max;
WRITELN('Primes < ',max:6,' &
',minval:6);
WRITELN;
start:=READCLOCK;
OR index:=max DOWNT0 minval
DO
BEGIN
j:=3;
WHILE j < testfactor DO
BEGIN
IF ((index MOD j) = 0) OR
(NOT ODD(index)) THEN
j:= testfactor + 2 ELSE j:=j
+ 2;
END; (of WHILE/DO)
IF index < (pos*100) THEN
BEGIN
WRITELN;
pos:= pos -1;
END; (of IF/THEN)
IF j = testfactor THEN
WRITE(index:6);
END; (of FOR/DO)
stop:=READCLOCK;
WRITELN;
WRITELN;
WRITE('Runtime = ',(stop - start):7);
WRITELN(' seconds, by Computer
One Pascal');
END.

```

Listing 4

```

100 REMARK A superbasic program
for comparison to other languages.
110 WINDOW 496,200,0,0:CLS
120 PRINT "This is a 26-line
program in QL-SUPERBASIC"
130 PRINT "This program will find
the prime numbers less than 32767."
140 INPUT "Stop calculation at what
value less than 32767? Please
enter."v
150 pos = 32767 DIV 100
160 IF v>32767 OR v<0 THEN PRINT
"Invalid!" :PAUSE 250 :CLS: GO TO

```

```

130
170 CLS: PRINT "Primes < 32767 &
",v \ \
180LET start= DATE
190 FOR i = 32767 TO v STEP -2
200 FOR j=3 TO 191 STEP 2:IF NOT
i MOD j THEN GO TO 240
210 IF (i < pos*100) THEN PRINT
\pos=pos-1
220 PRINT i; ' ';
230 END FOR j
240 END FOR i
250 time=DATE-start: PRINT
\ "Runtime = ";time;" seconds,in
SUPERBASIC"
260 STOP

```

PROGRAMMING. PASCAL AND OTHER COMMENTS

by Duane Parker

Participation in the Pascal workshops have been good from time-to-time, but we have not been able to get the whole group past all the simple excercises that I made up to introduce the subject. I will continue to lead this effort for those interested, but I expect that we will have to change our modus operandi. I am not an expert in Pascal, but I hope that our efforts will help help us all learn more.

Learning programming is an individual process of trying it out until you get it to work. It is almost impossible to learn it from a book or a lecture, without a computer (anyway, it's no fun that way). Therefore, I recommend that those interested in continuing the Pascal experience finish the first five exercises on their own and bring any problems that they have to the December and/or January meeting. We can then continue on no. 6, and get into more interesting aspects. Pascal is a transportable language, so there are innumerable sources of information and useful program shells available that can be built upon. We can design machine code programs for the QL with this language as a tool.

Anyone interested in participating

Please turn to page 11

Statistical Functions for Archive

by Thomas Robbins

Archive, like Superbasic, is an extendable language through user defined procedures. While Archive does not have any built-in statistical functions, these can easily be added. The following procedures let you calculate the mean, standard deviation and coefficient of variation for any numerical field in your data base. Additionally, you can plot a graph of the data in the field to your screen. The functions are called by entering `stat;field` where field is the number of the field you wish statistics for. Note that data fields in archive are numbered beginning with 0, not 1. To plot a graph of the data, first generate the statistics as above. Then enter `splot;field` (where field is again the field number you wish to examine). A graph of the data, properly scaled will be displayed.

```
proc dec2
let mean=val(dec(avg,2,10))
let sd2=val(dec(2*sd,2,10))
endproc

proc splot;
fld mode 0,8
dec2
print at 5,0;mean+sd2
print at 6,0;"~+2sd"
print at 10,0;mean:
print at 11,0;"Mean
print at 15,0;mean-sd2:
print at 16,0;"~2sd"
let screen-unit=10/(4*sd)
let hpos=10
all
print at 5,hpos;"~"
print at 10,hpos;"~"
print at 15,hpos;"~"
print at (10-((fieldv(a)-mean)*
screen-unit)),hpos;"x"
let hpos=hpos+2
endall
print at 22,0;"data points    sd
avg    cv"
print tab 5;n; tab 20;sd2/2; tab
30;mean; tab
40;val(dec(SD/N,3,10))
print at 0,0;"
endproc
```

```
proc stat;field
let a=field
cls
print "calculating statistics" stat1
stat2
print : print
print n;" DATA POINTS"
print "Average Value : ";(dec
(avg,3,10))
print "S.D. : ";(dec(sd,3,10))
print "C.V. : ";(dec(sd/n,3,10))
endproc

proc stat1
last : let n=recnum()+1
let sum=0
all
let sum=sum+fieldv(a)
endall
let avg=sum/n
endproc

proc stat2
let sd=0: let ss=0
all
let sq=(avg-fieldv(a))*(avg-fieldv(a))
let ss=ss+sq
print fieldv(a);" ";
endall
let sd=sqr(ss/(n-1))
endproc
```

Editorial-From page 2

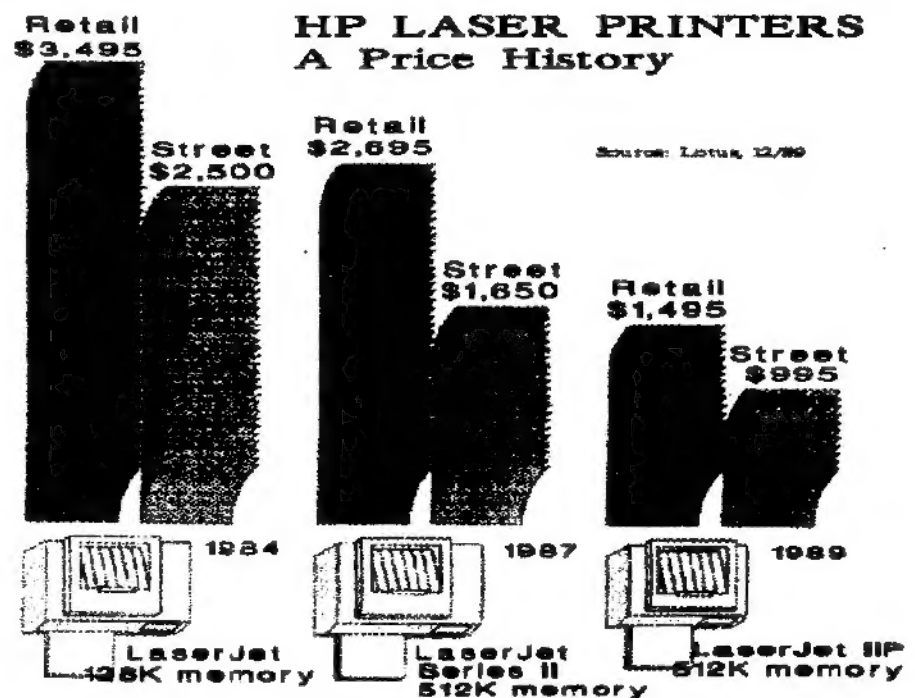
keyboard matrix to determine if the membrane is at fault. Mark also has articles on the BBS and his quest for equipment and software to upgrade it to 1200 baud. Tom Robbins checks in with utilities and procs for use with Archive. Need to use statistics? His applications are right up your alley. Mannie Quintero tells us how he uses his QL and I would like to extend an invitation to all of you to contribute to this series. If you have been following Duane Parker's Pascal series, there is another segment in this issue. If you haven't, maybe this issue will whet your appetite. Finally, I've written a reply to DP's comments on my Quanta letter about their Professional Publisher.

The next issue

I need your articles for the February and March issues. Please send them in right away. At this time of the year, I am trying to get away each weekend to ski so I'm not able to make that big last weekend push.

Enjoy the issue.

The graph below should have accompanied the Laser News item on page 3.



HOW I USE MY COMPUTER

by Mannie Quintero

Several months ago it was suggested that we (CATS members) contribute to a series on how we used our computers. Herewith is my story. Like many QL owners, I own more than one machine. In fact, I own two. I also have two TS1000s, a 2068, and a 192K Altos Model 5-15D which runs MP/M, a multi-user CP/M version. My preferred machine and the one on which I feel most capable is, natch, the QL. Add-ons include a Micro Control Systems disk and memory interface (512K) w/ parallel printer port which drives either a Smith-Corona Fastext 80 or a Panasonic KX-P1092i nine pin printer. I also own an Okidata Microline 93 printer which is occasionally useful. A Kyocera KM1200s modem will come into play when our 1200 baud CATS BBS becomes fact. I just rounded out my media handling by adding a 3.5 inch disk to my 5.25 in. drive setup. I've

networked #2 QL in hopes that my wife will "get the bug" and put it to some domestic (recipes, etc.) use or whatever, but no soap so far. Perhaps the primary application of computer power for me is in writing-- letters mostly, but I have started work on a book. Since I correspond in Spanish and Portuguese, I have had to teach my computer to speak in those tongues also. Other applications are through Archive in keeping address/data lists for personal correspondence, my high school class which I'm trying to get together after 45 years of no contact, and people from the Panama Canal Zone in this area in a loosely-organized association. Label printing for use on Christmas cards is a real time saver and I have made a stab or two at producing the cards by use of a QUANTA drawing program. Abacus is quite useful in tracking investment data keeping track of share and stock costs, calculating gain/loss on sales and the information needed for tax filing. Exporting data to Easel provides graphs quite useful in showing market trends as a tool for

making decisions. Obviously, having Taskmaster simplifies the weekly financial task.

Much of my computer time is spent in exploring the multitudinous and varied programs of the QUANTA library. There is a wealth of info therein and it all takes time to look at, read the documentation, try to run the programs (some of which I've found are missing a line for some strange reason) and slowly learn the ins and outs of Superbasic programming. Figuring out why a program doesn't work can teach one an awful lot of things and take a lot of time. (It sure keeps one off the streets and out of bars.) Of course, it gets easier all the time as one accumulates the bits of knowledge, arcane and otherwise, used in our hobby and it gives one a good feeling of accomplishment.

So that, fellows and gals, is pretty much how I use my computer. Being retired doesn't let me pad out this account with a litany of computer tasks from the office. Who's next for "show and tell"?

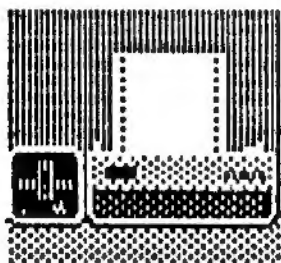
KEYBOARD MATRIX CHART

The following chart is reproduced from Fig 4.16, Sinclair service manual of October, 1985. Later issues apparently didn't include it - perhaps to sell more keyboard matrices. It has errors in it, but it'll serve as a starting point for construction of GOOD QL keyboards.

J12											
	1	2	3	4	5	6	7	8	9	10	11
9		CTRL	SHIFT								ALT
8			~	ESC	→	BAR	4	+	ENTER	↓	
7				X	V	N		<		?/	
6			Z	C	B	M	?	:)	;	
J11 5			CAPS LOCK	S	F	G	K	:	[+	
4			;	#	3	A	D	H	J	L	P
3			W	TAB	R	Y	I	9	O	-	
2			Z	Q	E	T	6	U	B	0	
1			F1	F2	F3	5	%	8	F4	F5	

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Pascal-Continued from page 8

public library.

BBS report-From page 7

can get most of the background from the C.A.T.S. N/Ls, June-September. Any simple textbook on the subject is also recommended. Check any

absence. I'll report further developments as they come.
Happy New Year!

CATS maintains a gratis exchange of newsletters with approximately 30 Users Groups across the U.S. and Canada. Groups not sending a newsletter to us for six months are automatically taken off the list.

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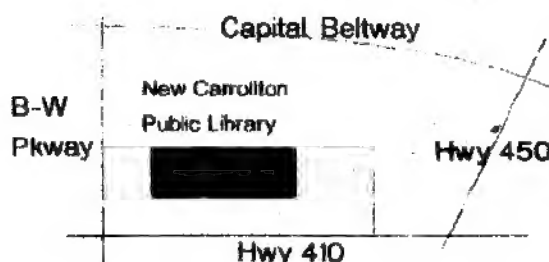
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